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# INDICATORS FOR INTEGRATION OF ENVIRONMENTAL CONCERN INTO THE AGRICULTURAL POLICY

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### **Abstract**

Links between the rich natural environment and farming practices are complex, agriculture continues to be the main user of the countryside, and a determinant factor of landscape and environmental quality, therfore in recent years more attention was paid to the integration of environmental policy objectives in agricultural policy. The paper aims to analyze the main environmental requirements of Common Agricultural Policy in relation to the indicators used to measure integration of environmental concern into the CAP.

**Key words:** Agriculture, environment protection, indicators, integration

### INTRODUCTION

EU policies, particularly the Common Agricultural Policy emphasizes more and more the risk of environmental degradation, while encouraging farmers to continue to play a positive role in maintaining the environment and rural development by using measures to ensure increased profitability in different regions. Some measures to support agricultural policy, caused damaged of natural capital through erosion, water pollution and biodiversity loss. Follow the Gothenburg European Council was agreed that "economic performance must go in correlation with sustainable use of natural resources", principles that have been also confirmed in the Lisbon strategy.

# **Environment and Common Agricultural Policy**

First agri-environment schemes were introduced in 1992, after the 2003 and 2004 CAP reforms represented a major step to sustainable development of agriculture; sustainability is supported by a number of initiatives, including cross-compliance.

Agenda 2000 reorganized orientation of instruments of development policies to strengthen agricultural and forest sector and improve competitiveness in rural areas and preserve the environment and rural heritage. Therefore, the need to create a new framework for rural development as the main starting point in restoring economic and social network in rural areas has become indispensable.

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Development and implementation a policy of rural development has become with the CAP Agenda 2000 the second pillar of Common Agriculture Policy. Together with the first pillar - market support through joint organization of market, rural development policy has become an essential part of the European development model.

It has been passed to adoption of measures that put based of new EU agricultural policy, measures whose main purpose is to apply the Community Strategy for rural development in member countries, a greater emphasis was gave to the environmental dimension of agriculture, great importance had agri-environment measures, which generally have been assessed positively by the population and are also well accepted by farmers. Agri-environmental measures are intended to provide additional payments to farmers who provide environmental services and maintenance of the country-side site, on a voluntary basis (which means more than the minimum requirements in the field). The purpose of agri-environmental measures is to strengthen the role of farmers and encourage their actions to conserve biodiversity and rural landscape diversity.

Reform effects on the environment were different. Intensive models of culture and farming were removed. Can be identified in this respect some positive aspects: more rational use of fertilizers and pesticides to reduce the guaranteed price, environmental benefits generated by the restriction of production areas, stimulation of a better territorial distribution of livestock.

2003 and 2004 CAP reforms represent a major step forward in improving the competitiveness and sustainability of farming in the EU and provide the framework for future reforms.

A simplified system was proposed to new Member States: a system known as the Single Area Payment Scheme (SAPS). Receiving direct payments to farmers under the SAPS is subject to compliance with a set of environmental standards and animal and plant health through cross-compliance system, farmers must comply with 19 measures and a set of standards aimed at protecting agricultural land, known as The good agricultural and environmental practices - GAEC. The introduction of these standards aimed, first to ensure a minimum level of maintenance of agricultural land to prevent their abandonment, a possible threat during the decoupled payments and maintenance, on the other hand of areas occupied by pastures, partly in order to slow an massive conversion toward production of arable crops and to preserve the environmental benefits associated with certain types of grassland.

Based on the document Towards a Sustainable Agriculture, Commission presented a package of proposals for CAP reform, discussed by the Council of Ministers on Agriculture and Fisheries on January 2003. After difficult negotiations, in which opponents of reform were particularly net recipients of financial funds, it has reached a consensus on the package on June 2003.

One of the main elements of reform is to follow certain standards required by farmers as the environmental, food safety, animal and plant health. The inclusion of environmental, food safety, animal health and welfare increases consumer confidence and improve the environmental sustainability of agriculture.

In accordance with rural development policy, in 2007-2013, the European Union allocates 88.3 billion euros for rural development projects in 27 Member States. Land administration projects that support and improve the environment must receive at least 25% of this amount. However, in practice, national and regional authorities often decide to allocate a greater percentage of the budget for environmental measures.

In February 2006 it was adopted a European strategic guidelines for rural development. Rural development policy has been strengthened to meet the challenges of rural economic, political and environmental aspects century. The new legal framework and European Agricultural Fund for Rural Development emphasize the need to stimulate growth and create jobs in these areas to enhance sustainable development in accordance with the Lisbon and Gothenburg Council. As regards environmental protection are set a series of priorties: promoting environmental services and agricultural practices that protect animals, cultivated landscapes and forests, climate change, contribution of organic farming, promoting territorial balance.

On November 20, 2007, the EC started the public debate about improving the common agricultural policy. Currently, a new structure of the CAP reform is being discussed at European level. Its importance can not be underestimated, because on the results of so-called "Health Check" CAP will depend developments of multi-annual budget plan by 2013.

## New challanges

Currently, crucial challenges are raised for agriculture: climate change, water management and bio-energy. Of these, climate change influence evolutions of two areas. Much of the uncertainty concerns link on rainfall, extreme weather phenomena, the temperature, available water resources and soil conditions.

The EU policy also needs to meet public expectations for a sustainable agricultural policy, to turn on sustainable production patterns, especially when climate change affects both product capacity and alimentation of population.

Another issue is the sustainable use of water resources, as already provided health control of CAP will enables analyse of including water resources management aspects in the relevant CAP instruments category. It is essential that EU agriculture to have sustainable management of water resources, failing of this pressure both the quantity and quality of water used in agriculture will increase considerably.

Biodiversity decline remains a major challenge, and this is exacerbated by climate change and water demand, agriculture plays a key role in protecting biodiversity. Traditional agricultural practices have shaped the landscape and affect biodiversity, the existence of many of the rarest species actually depend on the continuation of traditional agricultural practices.

A significant challenge for agricultural policy is to provide economic incentives to farmers to continue using agricultural practices that protect biodiversity.

CAP-HC examines how the CAP could consider these complex areas, but after 2013. One option could be to introduce measures concerning climate change and water

resource management in cross-compliance measures. Another alternative would be to supplement funds for rural development so that under this pillar to be supported such measures.

## **Agri-environmental indicators**

In an attempt to integrate the proposals at the international level, the OECD proposed in 1999 a set of agri-environmental indicators, establishing a series of attributes that must be met by the indicators: to be relevant to politicies, to be made on sound scientifical basis and to be measurable.

At the meetings on Cardiff (June 1998), Vienna (December 1998) and Helsinki (December 1999), the European Council asked the Commission to report on the integration of environmental concerns into Community sectoral policies and asked for development of a set of indicators to monitor integration.

In January 2000 the European Commission published a policy document "Indicators for integrating environmental issues into the CAP", which identified a set of agri-environmental indicators to serve the following purposes: - provide information on environmental conditions in agriculture,

- -monitor the links between agricultural practices and their environmental effects,
- -provide contextual information, particularly concerning the diversity of agroecosystems EU
- -asses the measures on which agricultural policies promot rural development and and environmentally sustainable agriculture,
- inform on the overall assessment process of agricultural sustainability.

To improve and develop agro-environmental indicators system was launched in 2002 IRENA project (Indicator Reporting on the Integration of Environmental Concerns into Agricultural policy).

IRENA project results are the follows:

- 40 indicators and sub-indicators and corresponding data sets,
- an indicator report, which reviewed the agri-environment interaction on the basis of indicators and describes the development and progress on development of agro-environmental indicators;
- -an indication that the assess report on integrating environmental concerns into the CAP, which assesses the usefulness of indicators for policy evaluation system policy;
- -an evaluation report, which examines the implementation of the IRENA operation, evaluates the indicators and data sources used, and identify areas for future work.

In 2006, the European Commission adopted 28 indicators of environmental agriculture (AEIs) to assess the interaction between CAP and the environment.

The indicators are identified under the DPSIR (Driving forces - Pressures and benefits - State/Impact - Responses) analytical framework:

# AGRO-FOOD AND RURAL ECONOMY COMPETITIVENESS IN TERMS OF GLOBAL CRISIS

Tabel 1 Consolidated agri-environmental indicator set

Domain	Sub-domain	Title
Responses	Public policy	Agri-environmental commitments
		Agricultural areas under Natura 2000
	Technology and	Farmers' training level and use of environmental farm
	skills	advisory services
	Market signals	Area under organic farming
	and attitudes	
Driving forces	Input use	Mineral fertiliser consumption
		Consumption of pesticides
		Irrigation
		Energy use
	Land use	Land use change
		Cropping patterns
		Livestock patterns
	F a r m management	Soil cover
		Tillage practices
		Manure storage
	Trends	Intensification/extensification
		Specialisation
		Risk of land abandonment
Pressures and benefits	Pollution	Gross nitrogen balance
		Risk of pollution by phosphorus
		Pesticide risk
		Ammonia emissions
		Greenhouse gas emissions
	R e s o u r c e depletion	Water abstraction
		Soil erosion
		Genetic diversity
	Benefits	High Nature Value farmland
		Renewable energy production
State/Impact	Biodiversity and habitats	Population trends of farmland birds
	Natural resources	Soil quality
		Water quality - Nitrate pollution
		Water quality - Pesticide pollution
	Landscape	Landscape - state and diversity

Source: EC,2010

### Conclusion

Development level of agro-environmental indicators is different, some are already operational, their concepts and measurement are well-defined. However, a series of indicators need substantial improvements in order to become fully operational, for example indicators related on benefits and landscape.

In order to improve the set of indicators and their availability for analyses on the integration of environmental objectives is required a unitary monitoring of agrienvironmental indicators at national level. Moreover, given the interdependence relation among agriculture and environmental, indicators should assess factors that contribute to agricultural production, but have an impact on environmental conditions.

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